
United States Coast Guard

Final Report for

Task Order #18

PCB Transformer Removal

Former USCG Airstation Annette Island

January 12, 1999



Carson Dorn, Inc.



January 12, 1999

CEU Juneau
P.O. Box 21747
Juneau, AK 99802-1747

Attention: Mr. Mike Dombkowski
Environmental Protection Specialist

Dear Mr. Dombkowski:

Executive Summary

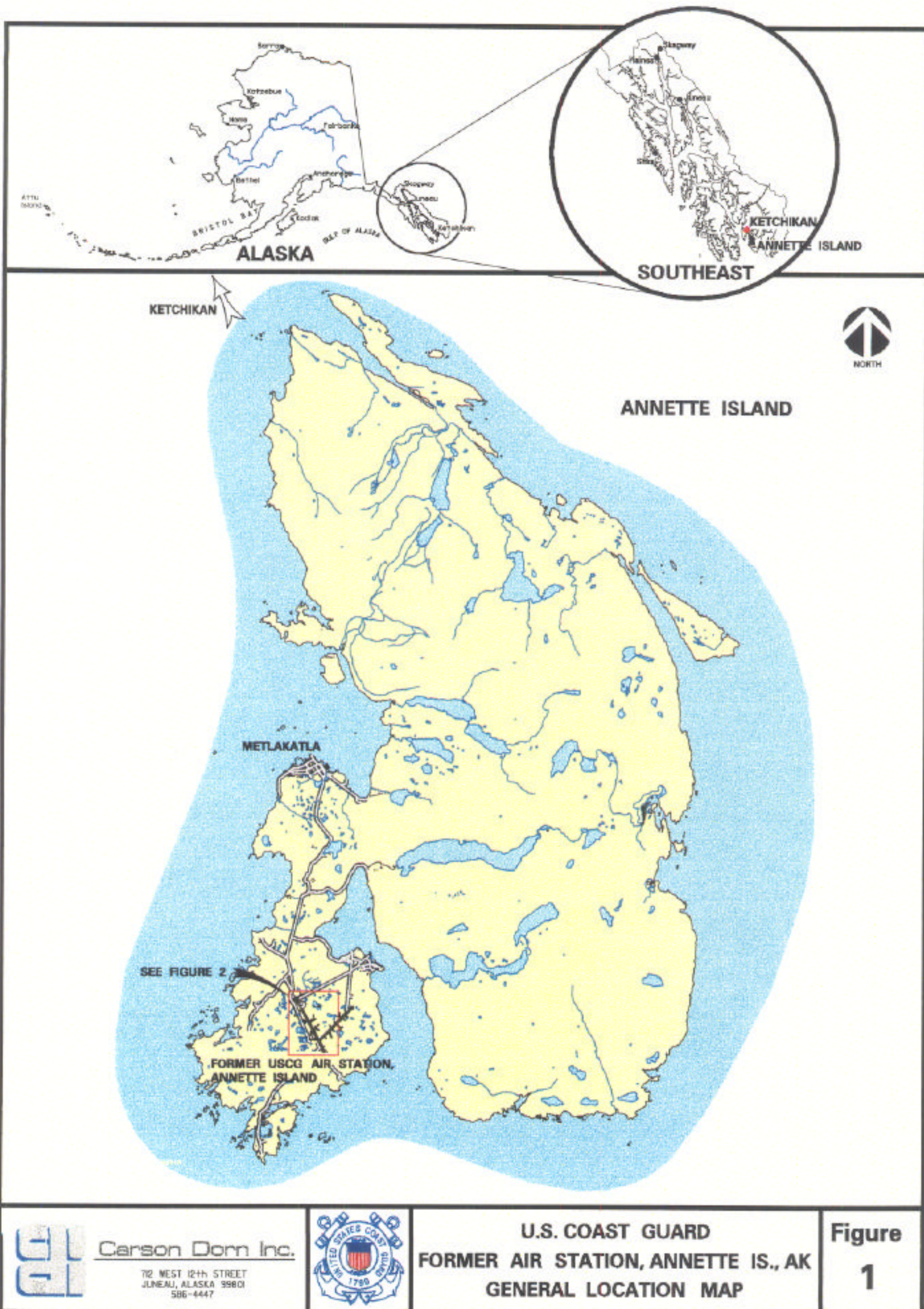
The purpose of this project was to remove an inactive pad-mounted electrical transformer containing PCB contaminated transformer oil from the former U.S. Coast Guard Air Station, Annette Island, Alaska (Figure 1). The transformer oil (mineral oil dielectric fluid) remaining in the inactive transformer was found to contain 379 ppm PCB. The dielectric fluid, transformer, concrete pad, and associated debris were placed into appropriate containers, marked, labeled, and transported to ISC Ketchikan in December 1997. The PCB Contaminated Electrical Equipment and other PCB items generated during this project will be stored at the Environmental Department at ISC Ketchikan pending transport to an appropriate disposal facility.

Following removal of the transformer and associated items, soil samples were collected for PCB analysis to determine the extent of potential PCB contamination in soils near the transformer. The soil samples collected immediately under the transformer pad and to the east, south, and west did not contain any detectable PCBs. The samples collected from the north side of the transformer pad and between the Hangar and the Boiler building transformer contained detectable levels of PCB-1260.

Introduction

Air Station Annette was occupied by the U.S. Coast Guard until the mid 1970's when operations were moved to Sitka, Alaska. Recently, the community of Metlakatla has become concerned about potential environmental contamination associated with Air Station Annette and has requested that the U.S. Coast Guard and other federal agencies with a history of activity at Annette Island investigate hazardous environmental conditions.

During a combined investigation with U.S. Coast Guard CEU Juneau and the FAA during the spring of 1997, an inactive pad-mounted transformer was discovered adjacent to the former Hangar boiler. The transformer was a 75 KVA General Electric weighing approximately 1750 pounds, and contained approximately 50 gallons of transformer oil.



Carson Dorn Inc.

702 WEST 12TH STREET
JUNEAU, ALASKA 99801
586-4447



U.S. COAST GUARD
FORMER AIR STATION, ANNETTE IS., AK
GENERAL LOCATION MAP

Figure
1

The transformer oil (mineral oil dielectric fluid) in the transformer was sampled in March, 1997 during site investigation activities and was found to contain 379 ppm PCB. A copy of the analytical report for the transformer was obtained from the FAA and is included in Appendix D of this report. Staining observed on the concrete pad indicated that a previous release of transformer oil may have occurred.

Site Reconnaissance

The field team mobilized from Juneau to Ketchikan on December 17, 1997 where a Taquan Air float-plane was chartered to transport the team and equipment to Metlakatla. Once in Metlakatla the team met with Herb Guthrie of Boyer Barge Lines to check on the status of the disposal barrels and coordinate activities with the transporter.

A brief meeting was held with the Metlakatla Indian Community Environmental Consultant (Fred Benz - Ridolfi Engineers) to discuss the strategy and timing of the transformer removal activities. Jeff Benson, the Environmental Coordinator for the Metlakatla Indian Community had requested that a representative from Ridolfi Engineers be on site to observe the transformer removal and soil sampling activities.

Due to the nature of the contaminants involved, one of the requirements for the project was that all site workers have 40 hour HAZWOPER training. Arrangements had been made with Dutch Achenbach of Metlakatla Power and Light to hire one of their employees as a backhoe operator. In addition, the backhoe used during the removal activities was rented from Metlakatla Power and Light.

A site visit was conducted on December 17, 1997 with Dutch Achenbach of Metlakatla Power and Light. The boiler building and a smaller storage building are located directly across the road from the Hangar and a garage building (Figure 2). The area between the Hangar and garage buildings had been the site of FAA remediation activities during the summer of 1997 when approximately 500 cubic yards of PCB contaminated soil were removed.

The transformer was located approximately 60 feet from the road to the northwest of the former boiler building (Figure 3). Although the transformer was inactive, the main power feeds from the transformer to the boiler building had not been cut. An inactive electric power pole, approximately 10 feet west of the transformer, had been knocked over and appeared to have hit the top of the transformer. No other power lines or other underground utilities were located in the vicinity of the transformer.

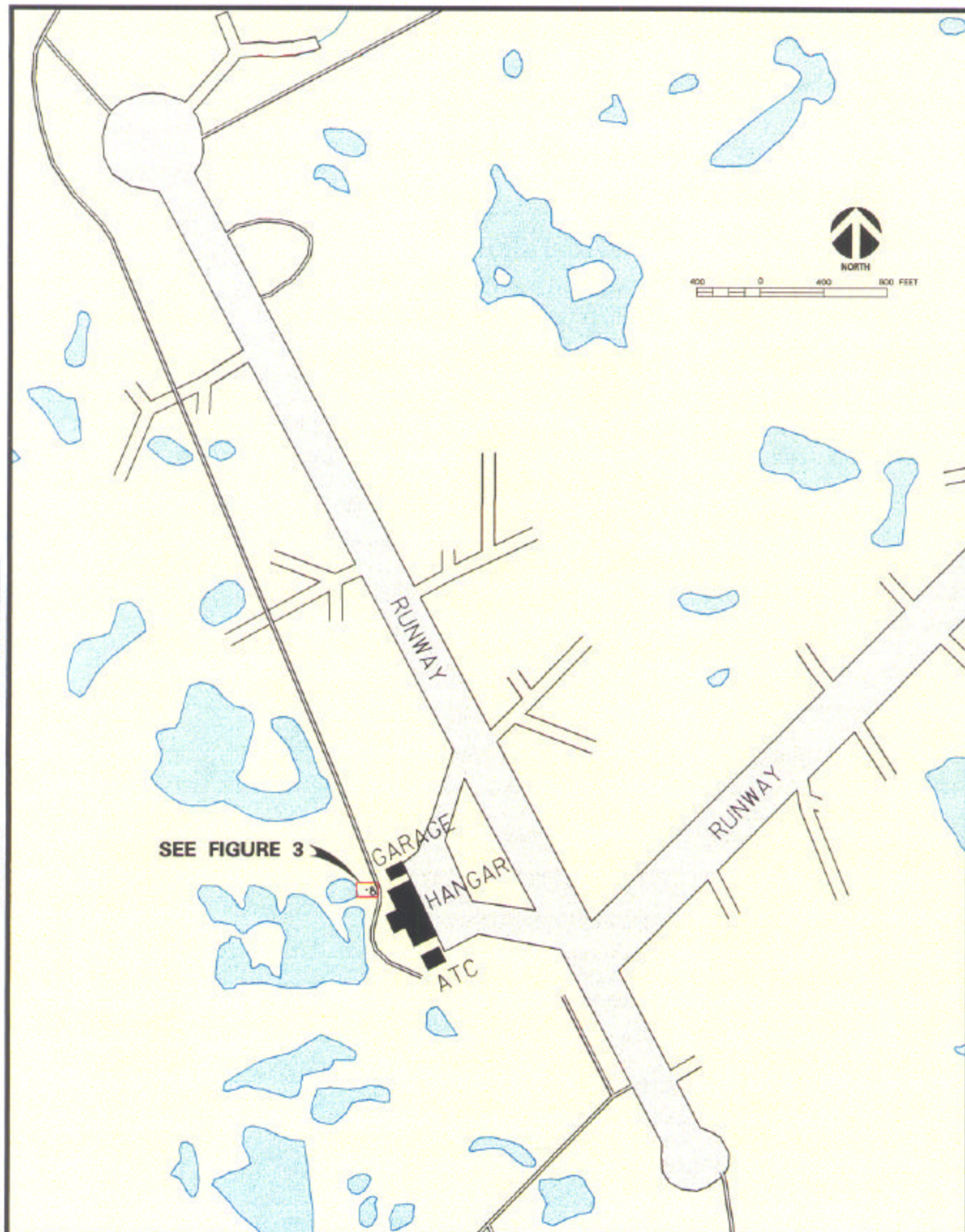
The area around the transformer was heavily overgrown and it was determined that the alder trees and other brush would be cleared with the backhoe to provide site access. There is a small pond located 60 feet to the west of the site and a larger pond/bog area approximately 120 feet to the southwest.

Date Plotted: 14 JAN 92 Time Plotted: 14:08:23

Date Plotted: 14 JAN 92 Time Plotted: 14:08:23

FILE:ADLAB\USCG\ANNETTE\FIG.2.DGN

Author/Plot Name:



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586-4447



**U.S. COAST GUARD
FORMER AIR STATION, ANNETTE IS., AK
SITE MAP**

**Figure
2**

Protective Equipment

During all removal activities, soil sampling, and handling of PCB items, the field team wore appropriate personnel protective equipment including:

- Kappler CPF II Hooded Coveralls with Bound Seams
- Saranex Shoe Covers
- Nitrile Liner Gloves
- Nitrile Outer Permeation/Chemical Resistant Gloves with Breakthrough Indicator
- Hardhats
- Steel-toed Boots
- Protective Eyewear
- Hearing Protection (as needed)

Transformer Oil Removal

The transformer was found to be in relatively good condition although the top cover was slightly dented. There was evidence of a small amount of leakage from the oil level sampling port on the upper right side of the transformer, as well as a small amount of staining on the concrete pad. There was no obvious evidence of a large spill having occurred from the transformer recently.

In order to gain access to the inside of the transformer the top lid was pried off and the sheet metal housing on the front of the transformer was removed. There were two nine inch access ports on the top of the transformer secured by ring clamps. The clamps and covers were removed to allow the transformer oil to be pumped out and the inside of the transformer to be cleaned.

A disposable electric drill-operated transfer pump, with 1/2 inch plastic tubing on either end, was used to pump the transformer oil into a DOT approved 55 gallon drum with non-removable head. Approximately 50 gallons of transformer oil were removed and placed in the drum (Photograph #2). The drum was marked with appropriate labels indicating that it contained PCBs.

Once the majority of the transformer oil had been removed the transformer was lifted onto its front edge and the drain plug in the lower left side was removed to allow residual oil to drain out and was captured in a plastic bucket. Approximately 1/2 gallon of residual transformer oil was removed in this manner and poured into the 55 gallon drum. The drum containing the PCB contaminated transformer oil was then placed in an overpack drum and packed with vermiculite (Photograph #10). The drum was marked with a Large PCB Mark, and labeled as contaminated oil with 379 ppm PCB. The unique identifying number AI9701a was placed on this barrel.

To the extent possible, the inside of the transformer was cleaned with oil absorbing pads and volatile mineral spirits solvent (325-Chevron). Visual observations of the inside of the transformer with a flashlight indicated that less than 1% residual oil remained in the

transformer after the cleaning procedure was completed. The outside of the transformer was wiped down with oil absorbing pads and the solvent to remove any residual oil.

All contaminated absorbent pads, gloves, protective suits, transfer pumps and tubing, and any other waste generated during this task were disposed of in a 55 gallon, DOT approved, open top drum which was marked as containing PCB contaminated debris and given the unique identifying number AI9702b.

Transformer Removal

The backhoe operator David Schwehm, a lineman for Metlakatla Power and Light, cut the main power feeds prior to beginning transformer removal activities. The top of the transformer and sheet metal housing were dismantled by removing and/or cutting the necessary nuts and bolts.

Upon further inspection it was discovered that the transformer was not actually bolted to the concrete pad but was sitting in place on the anchor bolts. The transformer was lifted off the pad with a lifting sling attached to the hooks on the transformer, and temporarily placed on a piece of 6 mil polyethylene sheeting. The drained and cleaned transformer was marked as PCB Contaminated Electrical Equipment and labeled with the date removed from service (Photograph #11).

A knock-down packing crate was constructed by Washington Packaging Supply and shipped to Ketchikan. The crate was assembled at the site next to the flat supplied by Boyer Barge Lines. The assembled crate had dimensions approximately 48" X 48" X 48" and was lined with a polyethylene liner.

The transformer was placed into the packing crate with the backhoe and the sheet metal housing was cut up and packed in the crate. The crate was then filled with vermiculite and the top was screwed on. A forklift from the Metlakatla Sawmill was used to lift the sealed crate onto the flat. The crate was then marked as containing PCB contaminated Electrical Equipment, labeled with the date removed from service (12-18-97), and a unique identifying number (AI9706d).

Concrete Pad Removal

The concrete pad that the transformer was on measured 5'3" X 4'8" X 8" thick with an approximately 4' X 1'6" opening in the northern side. The underground power feeds to the Boiler building were located in 4" conduit that emerged through the hole in the slab and connected to the transformer. The sheet metal housing covered the opening in the concrete pad. Once the transformer was removed the concrete pad was carefully lifted with the backhoe bucket (Photograph #6) and placed on a piece of 6 mil polyethylene approximately 3' north of its former location. Care was taken when removing the concrete pad not to disturb the footprint so any evidence of soil contamination under the pad could be observed. The concrete pad was inspected for gross surface contamination and wiped with absorbent pads. There was very little apparent staining on the concrete, however efforts to clean it were hampered by the weather.

The concrete pad was broken into pieces using the backhoe bucket and the pieces were placed into two 55 gallon DOT approved open top barrels and one 83 gallon DOT approved overpack drum. The drums were labeled as containing PCB contaminated debris and given the unique identifying numbers AI9703b, AI9704b, and AI9705c.

Breaking the concrete pad up was difficult due to rebar and a copper ground cable embedded in the concrete. The rebar and ground cable were cut using a Sawzall reciprocating saw and a Makita grinder with a diamond blade. In addition the ground near the transformer was very soft and made breaking up the concrete difficult. Rainy weather further hindered efforts to break up the concrete and the soils under this area were significantly disturbed. Once the concrete was broken up all concrete debris was picked up from the area and placed in the barrels for disposal.

Packaging and Transport of Transformer and Associated Waste

The crate with the drained and cleaned transformer, the overpack barrel containing the transformer oil, the three 55 gallon drums and the 83 gallon overpack drum containing debris were placed on the flat brought to the site by Boyer Barge Lines. All of the PCB items were marked, the contents identified, the date removed from service indicated, and unique identification numbers assigned (see above).

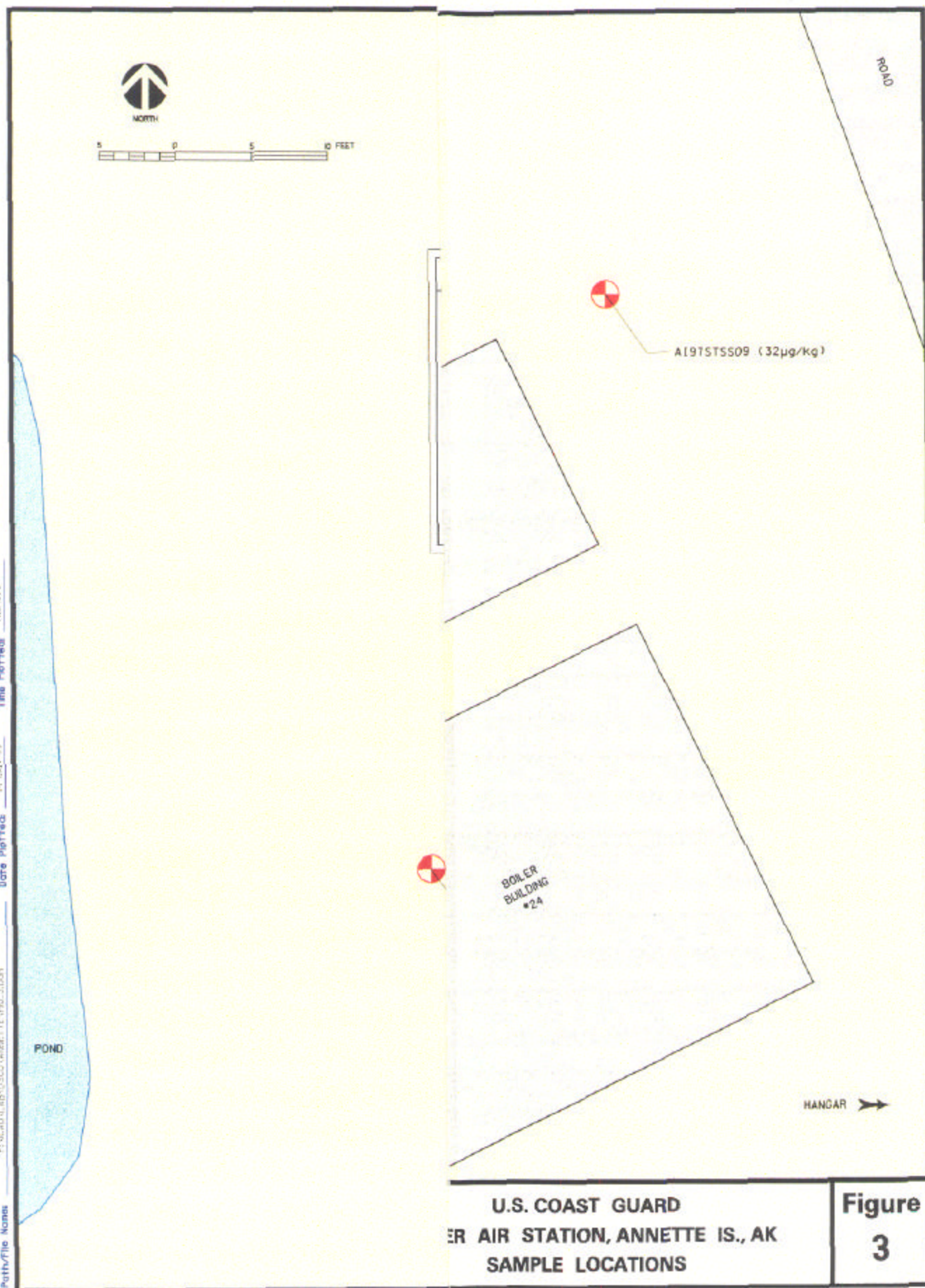
A Uniform Hazardous Waste Manifest (EPA 8700) was prepared listing six containers of PCB contaminated waste. The manifest was signed by Herb Guthrie as the transporter for Boyer Barge Lines (US EPA ID number is AKD126916782). The manifest was then sent via Taquan Air to Ketchikan where Chris Rose signed for the U.S. Coast Guard and sent back to Metlakatla.

The generator is listed as U.S. Coast Guard Annette Island, AK and the generic generator ID 40CFRPART176 was used on the manifest. The designated facility on this manifest is the U.S.Coast Guard - ISC Ketchikan (US EPA ID number AK8690360492).

The transformer removal activities began on December 18, 1997 and the crated transformer and other PCB items were transported to the Boyer Barge Dock in Metlakatla on December 20, 1997. The barge left Metlakatla on Monday December 22, 1997. Upon arrival in Ketchikan, the flat loaded with the PCB items was stored in the Boyer Barge Line secured yard until delivery to ISC Ketchikan on Monday December 29, 1997.

Sample Collection

Soil samples were collected using precleaned stainless steel spoons and disposable pie tins. Soil was placed into the pie tin and homogenized prior to filling the 8 oz glass jar sample containers. The sample jars were labeled with a unique identification number, the date and time sampled, the analysis, and the sampler name. The samples were placed in Ziplok bags and stored in a cooler with blue ice prior to shipping to the laboratory. A new pair of nitrile liner gloves was worn during each sampling event.



U.S. COAST GUARD
AIR STATION, ANNETTE IS., AK
SAMPLE LOCATIONS

Figure
3

All investigation derived waste (gloves, spoons, etc.) was placed in the drum with the absorbent pads and other PPE for disposal as PCB waste.

The soil under the solid part of the concrete pad appeared dry and there was no evidence of soil staining in this area. Samples AI97ESS01 and AI97WSS02 were collected under the solid part of the pad in dry and unstained soils. A split sample was collected from AI97WSS02 by the Ridolfi Engineer representative. The soil under the open part of the concrete pad was significantly darker (Photograph #7) and there was some evidence of soil staining. Sample AI97NWSS08 was collected from surface soils approximately 6" northwest of the conduit.

Sample AI97PSS03 was collected along a trail midway between the transformer location and the small pond 60' to the west. A split sample was collected from this location by the Ridolfi Engineer representative.

Due to the rain and the soil disturbance, it was difficult to tell if soil contamination was present to the north of transformer. However, the soil did appear to be oily and a soil sample was collected from this location at approximately 6" deep (AI97NSS04). A split sample was collected by the Ridolfi Engineer representative from this location. Approximately two cubic feet of soil that appeared oily was removed from a 2' X 2' disturbed area and placed in the drums with the concrete. The soil was removed down to an undisturbed surface, however, the soil appeared to become more contaminated with depth. A sample was collected from the oily soil at approximately 1'6" deep which was removed and placed in the barrels for disposal (AI97CTSS10).

Soil samples were collected from the east (AI97ESS05), south (AI97SSS06), and west (AI97WSS07 & 17/duplicate) sides of the former transformer location (Figure 3). All three of these samples were collected from native soils with high organic content at a depth of 6-8" below the surface. There was no visible evidence of contamination in these sample locations.

Sample AI97STSS09 was collected near the street in a line between the garage/Hangar site and the Transformer location (Figure 3). This sample was collected from native organic soils at a depth of 6" and appeared to be slightly oily.

Sample Results

All soil samples collected in conjunction with the transformer removal project were submitted to the subcontract laboratory for PCB analysis by method SW 8082. The results for the soil analysis are presented in Table 1.

The sample results are reported in $\mu\text{g/Kg}$ (parts per billion/ppb) and seven PCB compounds are listed. Of these PCB compounds, one type PCB-1260 was detected in four of the samples collected from the site. The sample results for the transformer oil were reported as 379 parts per million (ppm) which is 37,900 ppb.

**Table 1: PCB Transformer Removal,
Former USCG Air Station, Annette Island, AK
Soil Sample Results**

Sample ID	Location	Units	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260	PCB-1016
AI97ESS01	Under Pad East End (6" depth)	µg/Kg	ND	ND	ND	ND	ND	ND	ND
AI97WSS02	Under Pad West End (6" depth)	µg/Kg	ND	ND	ND	ND	ND	ND	ND
AI97PSS03	Between Trans & Pond (6" depth)	µg/Kg	ND	ND	ND	ND	ND	ND	ND
AI97NSS04	6' North of Trans (6" depth)	µg/Kg	ND	ND	ND	ND	ND	98	ND
AI97ESS05	4' East of Trans (6" depth)	µg/Kg	ND	ND	ND	ND	ND	ND	ND
AI97SSS06	4' South of Trans (6" depth)	µg/Kg	ND	ND	ND	ND	ND	ND	ND
AI97WSS07	4' West of Trans (6" depth)	µg/Kg	ND	ND	ND	ND	ND	ND	ND
AI97WSS17	Dup 4' West of Trans (6" depth)	µg/Kg	ND	ND	ND	ND	ND	ND	ND
AI97NWSS08	6" NW of Electrical Conduit (Su	µg/Kg	ND	ND	ND	ND	ND	ND	ND
AI97STSS09	Between Hangar and Trans (6" d	µg/Kg	ND	ND	ND	ND	ND	32	ND
AI97CTSS10	6' North of Trans (1' 6" depth)	µg/Kg	ND	ND	ND	ND	ND	700	ND

Trans = Former PCB Transformer Location (See Figure 3)

The samples collected from under the concrete pad were all non-detect, as were the samples collected to the east and south of the transformer location. The sample collected midway between the pond and the site was also a non-detect.

The sample collected to the west (AI97WSS07) was a non-detect, however, PCB-1260 was detected in the duplicate sample (AI97WSS17). The subcontract laboratory re-analyzed these samples to ensure that no laboratory error occurred. The reanalysis results for the duplicate samples (included in Appendix C) were non-detect.

Soil samples collected to the north of the transformer location indicated the presence of low levels of PCB contamination. The sample collected from the disturbed soil approximately 6" below the surface had 98 µg/Kg PCB-1260. The sample collected from deeper down in soil which appeared visibly oily indicated the presence of PCB-1260 at 700µg/Kg. A small amount of this soil was put in the drums for disposal, however the contamination appeared to be getting worse with greater depth. It is not clear what the extent of this soil contamination might be and further investigation was beyond the scope of this project .

The final sample was collected midway between the garage/Hangar site and the transformer removal site in order to determine if commingling of contamination might be occurring. This sample which was collected from a depth of 6-8" below the surface, contained 32 µg/Kg PCB-1260.

Conclusion and Recommendations

Based on the sample results it appears that low level PCB contamination is present in the vicinity of the Boiler building transformer location. The extent and exact source of this soil contamination is unclear. Due to the nature of PCBs it is possible that contaminated oil which may have leaked from the transformer would not be observed at the surface, but would be found deeper in the subsurface soils. The high annual rainfall in this area may also be a contributing factor to subsurface migration of PCB contamination.

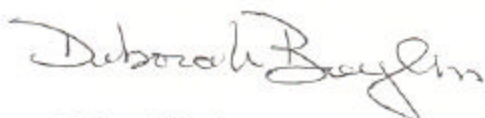
The presence of PCBs in the sample collected near the street indicates that the site between the Hangar and the garage may be a source of PCB contamination in the vicinity of the Boiler building transformer. Although the groundwater flow is likely to be slow due to the saturated nature of the soils, the hydraulic gradient is most likely toward the ponds (Figure 2).

The sources of the PCB contamination cannot be conclusively determined without further subsurface investigation. It is recommended that field screening using PCB immunoassay test kits be utilized to delineate the horizontal and vertical extent of potential PCB contamination at this site and to facilitate any remediation activities.

Photographs of the site and removal activities are included in Appendix A, a copy of the Uniform Hazardous Waste Manifest which accompanied the shipment to ISC Ketchikan, is included in Appendix B, the Analytical Data for the December 1997 soil samples is included in Appendix C, and a copy of the March 1997 transformer oil sample is included in Appendix D.

Please feel free to contact me at (907) 586-4447 if you have any questions or require additional information.

Sincerely,

A handwritten signature in dark ink, appearing to read "Deborah Boylen". The signature is fluid and cursive, with the first name "Deborah" and last name "Boyle" clearly legible.

Deborah Boylen
Environmental Scientist

enclosures

Appendix A
Site Photographs

PCB Transformer Removal , Former Coast Guard Air Station, Annette Island, AK



Photograph #1
Transformer Removal Site
Adjacent to Boiler Building



Photograph #2
Draining PCB Contaminated
Dielectric Fluid From Transformer



Photograph #3
View Of Site From Sample Collection Point
Between Transformer And Pond

Photograph #4
View of Pond From Sample Collection Point
Between Transformer And Pond



PCB Transformer Removal , Former Coast Guard Air Station, Annette Island, AK



Photograph #5
Removing Drained Transformer From Concrete Pad For Disposal



Photograph #6
Removing Concrete Pad For Disposal



Photograph #7
Footprint Of Concrete Pad Following Removal (Note Soil Staining)



Photograph #8
Site Following Transformer and Debris Removal

PCB Transformer Removal, Former Coast Guard Air Station, Annette Island, AK

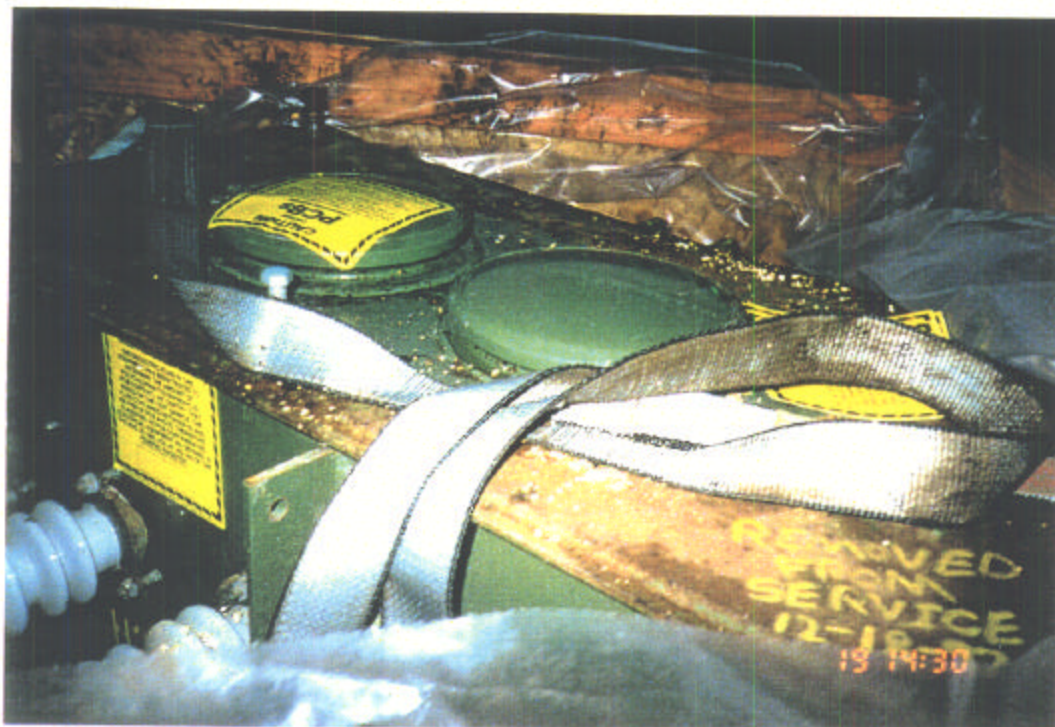


Photograph #9
Sample Collection Point Between FAA Site
Adjacent To Hangar, And The USCG
Transformer Removal Site

Photograph #10
Overpack Drum And 55 Gallon Drum
Containing PCB Contaminated Dielectric
Fluid



PCB Transformer Removal , Former Coast Guard Air Station, Annette Island, AK



Photograph #11
Drained And Cleaned Transformer In Lined Disposal Crate
Packed With Vermiculite



Photograph #12
Marked and Placarded Flat With Transformer And Other PCB Contaminated
Waste Awaiting Transport To ISC Ketchikan

Appendix B
Uniform Hazardous Waste Manifest

REPORTABLE QUANTITY VALUE RQ's - 5000/1000/100/10/1		REPORT ANY "RQ" DISCHARGE TO NATIONAL RESPONSE CENTER (800) 424-8802, AND 911 EMERGENCY NUMBER OR LOCAL OPERATOR EMERGENCY CONTACT: CHEMTREC (800) 424-9300		PLACARDS PROVIDED Class 9	EMERGENCY RESPONSE GUIDE NUMBER	a. 171	b. 171
a. RQ =	c. RQ =					c. 171	d. 171
b. RQ =	d. RQ =						

se print or type. (Form designed for use on elite (12 pitch) typewriter.)

Form Approved OMB No. 2050-0039 Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. 40CFR PART 176.11	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address USCG - CEU Juneau P.O. Box 21747 Juneau, Alaska		4. Generator's Phone (907) 463-2421 99802-1747		A. State Manifest Document Number			
5. Transporter 1 Company Name Boyer Alaska Barge Line, Inc. AKD 1269116782		6. US EPA ID Number		B. State Generator's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		C. State Transporter's ID			
9. Designated Facility Name and Site Address USCG - JSC Ketchikan 300 Steadman Street Ketchikan, Alaska 99901 AK 8690360492		10. US EPA ID Number		D. Transporter's Phone			
				E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone			
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol	15. Waste No.	
a. Waste PCB liquid, Class 9, UN 2315 Contains PCB's at 379 ppm		001 DM		00050 GAL			
b. Waste PCB contaminated soil and debris, Class 9, UN 2315		003 DM					
c. Waste PCB contaminated soil and debris, Class 9, UN 2315		001 DM					
d. PCB contaminated Electrical Equipment - Drained Transformer		001 CT					
J. Additional Descriptions for Materials Listed Above		K. Handling Codes for Wastes Listed Above					
15. Special Handling Instructions and Additional Information a - d removed from Service December 18, 1997		AGENCY DISPLAY OF ESTIMATED BURDEN "Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding this burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PH-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503."					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name CHRIS A. ROSE		Signature <i>Chris A. Rose</i>		Month Day Year 12 20 97			
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name HERBERT Guthrie		Signature <i>H. C. Guthrie</i>		Month Day Year 12 20 97			
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Month Day Year			
19. Discrepancy Indication Space							
20. Facility Owner or Operator. Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19 Printed/Typed Name Signature Month Day Year							

Appendix C

Analytical Data



an Analytica Group company

Carson Dorn, Inc.
712 W. 12th Street
Juneau, AK 99801-1588

Attn: Deborah Boylen

JAN 1998

325 Interlocken Parkway
Suite 200
Broomfield, CO 80021
(303) 469-8868
(800) 873-8707
FAX: (303) 469-5254

Order #: 97-12-176
Date: 01/08/98 19:12
Work ID: ANNETTE IS TRANS REM
Date Received: 12/30/97
Date Completed: 01/06/98

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Client Description</u>
01	AI97ESS01
02	AI97WSS02
03	AI97PSS03
04	AI97NSS04
05	AI97ESS05
06	AI97SSS06

<u>Sample Number</u>	<u>Client Description</u>
07	AI97WSS07
08	AI97WSS17
09	AI97NWSS08
10	AI97STSS09
11	AI97CTSS10

Enclosed are the analytical results for the submitted sample(s). Please review the CASE NARRATIVE for a discussion of any data and/or quality control issues. A listing of data qualifiers and analytical codes is located on the TEST METHODOLOGIES page at the end of the report.

If you have any questions regarding the analyses, please feel free to call.

Sincerely,

Claire Toon

Claire Toon
Project Manager

Samples were prepared and analyzed according to methods outlined in the following references:

- o Test Methods for Evaluating Solid Waste, USEPA SW-846, Third Edition, Revision 3, January 1995.

All analyses meet quality assurance objectives.

Sample: 01A AI97ESS01

Collected: 12/18/97

Matrix: SOIL

Test Description	Method	Result	Q	Limit	Units	Analyzed
Percent Moisture	ASTM D2216	6.90		0.1	WT%	12/30/97
Polychlorinated Biphenyls	SW 8082					
PCB-1221		ND		360	ug/Kg-DRY	01/05/98
PCB-1232		ND		180	ug/Kg-DRY	01/05/98
PCB-1242		ND		18	ug/Kg-DRY	01/05/98
PCB-1248		ND		18	ug/Kg-DRY	01/05/98
PCB-1254		ND		18	ug/Kg-DRY	01/05/98
PCB-1260		ND		18	ug/Kg-DRY	01/05/98
PCB-1016		ND		18	ug/Kg-DRY	01/05/98
SURROGATES, % Recovery						
Tetrachlorometaxylene		63.4		Min: 11	Max: 102	
Decachlorobiphenyl		97.2		Min: 35	Max: 141	

Sample: 02A AI97WSS02

Collected: 12/18/97

Matrix: SOIL

Test Description	Method	Result	Q	Limit	Units	Analyzed
Percent Moisture	ASTM D2216	5.30		0.1	WT%	12/30/97
Polychlorinated Biphenyls	SW 8082					
PCB-1221		ND		350	ug/Kg-DRY	01/05/98
PCB-1232		ND		180	ug/Kg-DRY	01/05/98
PCB-1242		ND		18	ug/Kg-DRY	01/05/98
PCB-1248		ND		18	ug/Kg-DRY	01/05/98
PCB-1254		ND		18	ug/Kg-DRY	01/05/98
PCB-1260		ND		18	ug/Kg-DRY	01/05/98
PCB-1016		ND		18	ug/Kg-DRY	01/05/98
SURROGATES, % Recovery						
Tetrachlorometaxylene		65.7		Min: 11	Max: 102	
Decachlorobiphenyl		106		Min: 35	Max: 141	

Sample: 03A AI97PSS03

Collected: 12/19/97

Matrix: SOIL

Test Description	Method	Result	Q	Limit	Units	Analyzed
Percent Moisture	ASTM D2216	61.6		0.1	WT%	12/30/97
Polychlorinated Biphenyls	SW 8082					
PCB-1221		ND		870	ug/Kg-DRY	01/05/98
PCB-1232		ND		430	ug/Kg-DRY	01/05/98
PCB-1242		ND		43	ug/Kg-DRY	01/05/98
PCB-1248		ND		43	ug/Kg-DRY	01/05/98
PCB-1254		ND		43	ug/Kg-DRY	01/05/98
PCB-1260		ND		43	ug/Kg-DRY	01/05/98
PCB-1016		ND		43	ug/Kg-DRY	01/05/98
SURROGATES, % Recovery						
Tetrachlorometaxylene		45.9		Min: 11	Max: 102	
Decachlorobiphenyl		118		Min: 35	Max: 141	

Sample: 04A AI97NSS04

Collected: 12/19/97

Matrix: SOIL

Test Description	Method	Result	Q	Limit	Units	Analyzed
Percent Moisture	ASTM D2216	16.6		0.1	WT%	12/30/97
Polychlorinated Biphenyls	SW 8082					
PCB-1221		ND		400	ug/Kg-DRY	01/05/98
PCB-1232		ND		200	ug/Kg-DRY	01/05/98
PCB-1242		ND		20	ug/Kg-DRY	01/05/98
PCB-1248		ND		20	ug/Kg-DRY	01/05/98
PCB-1254		ND		20	ug/Kg-DRY	01/05/98
PCB-1260		98		20	ug/Kg-DRY	01/05/98
PCB-1016		ND		20	ug/Kg-DRY	01/05/98
SURROGATES, % Recovery						
Tetrachlorometaxylene		61.3		Min: 11	Max: 102	
Decachlorobiphenyl		100		Min: 35	Max: 141	

Sample: 05A AI97ESS05

Collected: 12/20/97

Matrix: SOIL

Test Description	Method	Result	Q	Limit	Units	Analyzed
Percent Moisture	ASTM D2216	5.90		0.1	WT%	12/30/97
Polychlorinated Biphenyls	SW 8082					
PCB-1221		ND		350	ug/Kg-DRY	01/05/98
PCB-1232		ND		180	ug/Kg-DRY	01/05/98
PCB-1242		ND		18	ug/Kg-DRY	01/05/98
PCB-1248		ND		18	ug/Kg-DRY	01/05/98
PCB-1254		ND		18	ug/Kg-DRY	01/05/98
PCB-1260		ND		18	ug/Kg-DRY	01/05/98
PCB-1016		ND		18	ug/Kg-DRY	01/05/98
SURROGATES, % Recovery						
Tetrachlorometaxylene		62.0		Min: 11	Max: 102	
Decachlorobiphenyl		95.8		Min: 35	Max: 141	

Sample: 06A AI97SSS06

Collected: 12/20/97

Matrix: SOIL

Test Description	Method	Result	Q	Limit	Units	Analyzed
Percent Moisture	ASTM D2216	55.1		0.1	WT%	12/30/97
Polychlorinated Biphenyls	SW 8082					
PCB-1221		ND		740	ug/Kg-DRY	01/05/98
PCB-1232		ND		370	ug/Kg-DRY	01/05/98
PCB-1242		ND		37	ug/Kg-DRY	01/05/98
PCB-1248		ND		37	ug/Kg-DRY	01/05/98
PCB-1254		ND		37	ug/Kg-DRY	01/05/98
PCB-1260		ND		37	ug/Kg-DRY	01/05/98
PCB-1016		ND		37	ug/Kg-DRY	01/05/98
SURROGATES, % Recovery						
Tetrachlorometaxylene		46.7		Min: 11	Max: 102	
Decachlorobiphenyl		80.0		Min: 35	Max: 141	

Sample: 07A AI97WSS07

Collected: 12/20/97

Matrix: SOIL

Test Description	Method	Result	Q	Limit	Units	Analyzed
Percent Moisture	ASTM D2216	9.30		0.1	WT%	12/30/97
Polychlorinated Biphenyls	SW 8082					
PCB-1221		ND		370	ug/Kg-DRY	01/05/98
PCB-1232		ND		180	ug/Kg-DRY	01/05/98
PCB-1242		ND		18	ug/Kg-DRY	01/05/98
PCB-1248		ND		18	ug/Kg-DRY	01/05/98
PCB-1254		ND		18	ug/Kg-DRY	01/05/98
PCB-1260		ND		18	ug/Kg-DRY	01/05/98
PCB-1016		ND		18	ug/Kg-DRY	01/05/98
SURROGATES, % Recovery						
Tetrachlorometaxylene		71.6		Min:	11	Max: 102
Decachlorobiphenyl		101		Min:	35	Max: 141

Sample: 08A AI97WSS17

Collected: 12/20/97

Matrix: SOIL

Test Description	Method	Result	Q	Limit	Units	Analyzed
Percent Moisture	ASTM D2216	8.10		0.1	WT%	12/30/97
Polychlorinated Biphenyls	SW 8082					
PCB-1221		ND		360	ug/Kg-DRY	01/05/98
PCB-1232		ND		180	ug/Kg-DRY	01/05/98
PCB-1242		ND		18	ug/Kg-DRY	01/05/98
PCB-1248		ND		18	ug/Kg-DRY	01/05/98
PCB-1254		ND		18	ug/Kg-DRY	01/05/98
PCB-1260		45		18	ug/Kg-DRY	01/05/98
PCB-1016		ND		18	ug/Kg-DRY	01/05/98
SURROGATES, % Recovery						
Tetrachlorometaxylene		65.8		Min:	11	Max: 102
Decachlorobiphenyl		112		Min:	35	Max: 141

Sample: 09A AI97NWSS08

Collected: 12/20/97

Matrix: SOIL

Test Description	Method	Result	Q	Limit	Units	Analyzed
Percent Moisture	ASTM D2216	13.9		0.1	WT%	12/30/97
Polychlorinated Biphenyls	SW 8082					
PCB-1221		ND		390	ug/Kg-DRY	01/05/98
PCB-1232		ND		190	ug/Kg-DRY	01/05/98
PCB-1242		ND		19	ug/Kg-DRY	01/05/98
PCB-1248		ND		19	ug/Kg-DRY	01/05/98
PCB-1254		ND		19	ug/Kg-DRY	01/05/98
PCB-1260		ND		19	ug/Kg-DRY	01/05/98
PCB-1016		ND		19	ug/Kg-DRY	01/05/98
SURROGATES, % Recovery						
Tetrachlorometaxylene		59.7		Min:	11	Max: 102
Decachlorobiphenyl		93.5		Min:	35	Max: 141

Sample: 10A AI97STSS09

Collected: 12/20/97

Matrix: SOIL

Test Description	Method	Result	Q	Limit	Units	Analyzed
Percent Moisture	ASTM D2216	12.8		0.1	WT%	12/30/97
Polychlorinated Biphenyls	SW 8082					
PCB-1221		ND		380	ug/Kg-DRY	01/05/98
PCB-1232		ND		190	ug/Kg-DRY	01/05/98
PCB-1242		ND		19	ug/Kg-DRY	01/05/98
PCB-1248		ND		19	ug/Kg-DRY	01/05/98
PCB-1254		ND		19	ug/Kg-DRY	01/05/98
PCB-1260		32		19	ug/Kg-DRY	01/05/98
PCB-1016		ND		19	ug/Kg-DRY	01/05/98
SURROGATES, % Recovery						
Tetrachlorometaxylene		69.7		Min:	11	Max: 102
Decachlorobiphenyl		132		Min:	35	Max: 141

Sample: 11A AI97CTSS10

Collected: 12/19/97

Matrix: SOIL

Test Description	Method	Result	Q	Limit	Units	Analyzed
Percent Moisture	ASTM D2216	15.2		0.1	WT%	12/30/97
Polychlorinated Biphenyls	SW 8082					
PCB-1221		ND		390	ug/Kg-DRY	01/05/98
PCB-1232		ND		200	ug/Kg-DRY	01/05/98
PCB-1242		ND		20	ug/Kg-DRY	01/05/98
PCB-1248		ND		20	ug/Kg-DRY	01/05/98
PCB-1254		ND		20	ug/Kg-DRY	01/05/98
PCB-1260		700		20	ug/Kg-DRY	01/05/98
PCB-1016		ND		20	ug/Kg-DRY	01/05/98
SURROGATES, % Recovery						
Tetrachlorometaxylene		57.7		Min:	11	Max: 102
Decachlorobiphenyl		98.7		Min:	35	Max: 141

THE FOLLOWING CODES APPLY TO THE ANALYTICAL REPORT

RESULT field...

ND = not detected at the reported limit

NA = analyte not applicable (see case narrative/methods for discussion)

Q (qualifier) field...

GENERAL:

* = Recovery or %RPD outside method specifications

H = value is estimated due to analysis run outside EPA holding times

E = reported concentration is above the instrument calibration range

D = analyte was diluted to bring within instrument calibration range or
to remove matrix interferences

ORGANIC ANALYSIS DATA QUALIFIERS:

B = analyte was detected in the laboratory method blank

J = analyte was detected above the instrument detection limit (IDL)
but below the analytical reporting limit (CRDL)

INORGANIC ANALYSIS DATA QUALIFIERS:

B = analyte was detected above the instrument detection limit (IDL)
but below the analytical reporting limit (CRDL)

W = post digestion spike did not meet criteria (80-120%)

S = reported value determined by the Method of Standard Additions

Order # 97-12-176
ANALYTICA, INC.

Carson Dorn, Inc.
TEST METHODOLOGIES

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PCB_8S: POLYCHLORINATED BIPHENYLS

METHOD: 8082

PCBPRS: Ultrasonic Extraction - PCBs

METHOD: 3550A

PMOIST: PERCENT MOISTURE

METHOD: ASTM D2216

Sample: 01A AI97ESS01

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Percent Moisture	ASTM D2216	12/18/97	12/30/97	NA		12/30/97
Polychlorinated Biphenyls	SW 8082	12/18/97	12/30/97	NA	12/30/97	01/05/98

Sample: 02A AI97WSS02

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Percent Moisture	ASTM D2216	12/18/97	12/30/97	NA		12/30/97
Polychlorinated Biphenyls	SW 8082	12/18/97	12/30/97	NA	12/30/97	01/05/98

Sample: 03A AI97PSS03

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Percent Moisture	ASTM D2216	12/19/97	12/30/97	NA		12/30/97
Polychlorinated Biphenyls	SW 8082	12/19/97	12/30/97	NA	12/30/97	01/05/98

Sample: 04A AI97NSS04

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Percent Moisture	ASTM D2216	12/19/97	12/30/97	NA		12/30/97
Polychlorinated Biphenyls	SW 8082	12/19/97	12/30/97	NA	12/30/97	01/05/98

Sample: 05A AI97ESS05

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Percent Moisture	ASTM D2216	12/20/97	12/30/97	NA		12/30/97
Polychlorinated Biphenyls	SW 8082	12/20/97	12/30/97	NA	12/30/97	01/05/98

Sample: 06A AI97SSS06

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Percent Moisture	ASTM D2216	12/20/97	12/30/97	NA		12/30/97
Polychlorinated Biphenyls	SW 8082	12/20/97	12/30/97	NA	12/30/97	01/05/98

Sample: 07A AI97WSS07

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Percent Moisture	ASTM D2216	12/20/97	12/30/97	NA		12/30/97
Polychlorinated Biphenyls	SW 8082	12/20/97	12/30/97	NA	12/30/97	01/05/98

Sample: 08A AI97WSS17

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Percent Moisture	ASTM D2216	12/20/97	12/30/97	NA		12/30/97
Polychlorinated Biphenyls	SW 8082	12/20/97	12/30/97	NA	12/30/97	01/05/98

Order # 97-12-176
ANALYTICA, INC.

Carson Dorn, Inc.
DATES REPORT

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Sample: 09A AI97NWSS08

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Percent Moisture	ASTM D2216	12/20/97	12/30/97	NA		12/30/97
Polychlorinated Biphenyls	SW 8082	12/20/97	12/30/97	NA	12/30/97	01/05/98

Sample: 10A AI97STSS09

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Percent Moisture	ASTM D2216	12/20/97	12/30/97	NA		12/30/97
Polychlorinated Biphenyls	SW 8082	12/20/97	12/30/97	NA	12/30/97	01/05/98

Sample: 11A AI97CTSS10

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Percent Moisture	ASTM D2216	12/19/97	12/30/97	NA		12/30/97
Polychlorinated Biphenyls	SW 8082	12/19/97	12/30/97	NA	12/30/97	01/05/98

QA/QC REPORT
METHOD BLANK SUMMARY

CLIENT: CARSON_DORN

01/08/98

PAGE: 1

ORDER#: 9712176

SAMPLE ID	ANALYTE	UNITS	PREP DATE	RESULT	LIMIT	SPIKE	REC FLAG	QC SPECS	
								LOW	UPPER
MS	POLYCHLORINATED BIPHENYLS	µg/Kg	12/30/97						
	PCB-1221			ND	330				
	PCB-1232			ND	170				
	PCB-1242			ND	17				
	PCB-1248			ND	17				
	PCB-1254			ND	17				
	PCB-1260			ND	17				
	PCB-1016			ND	17				
	Tetrachlorometaxylene			3.3		6.7	49.3	11	102
	Decachlorobiphenyl			6.7		6.7	100	35	141

QA/QC REPORT
METHOD BLANK SPIKE SUMMARY

SAMPLE ID	ANALYTE	UNITS	PREP DATE	RESULT	LIMIT	SPIKE	REF VAL	REC FLAG	QC SPECS	
									LOW	UPPER
BS	POLYCHLORINATED BIPHENYLS	µg/Kg	12/30/97							
	PCB-1221			ND	330		ND			
	PCB-1232			ND	170		ND			
	PCB-1242			ND	17		ND			
	PCB-1248			ND	17		ND			
	PCB-1254			ND	17		ND			
	PCB-1260			170	17	170	ND	100	38	128
	PCB-1016			170	17	170	ND	100	38	128
	Tetrachlorometaxylene			4.4		6.7		65.7	11	102
	Decachlorobiphenyl			8.4		6.7		125	35	141

QA/QC REPORT
MATRIX SPIKE SUMMARY
01/08/98

CLIENT: CARSON_DORN

PAGE: 2
ORDER#: 9712176

SAMPLE ID	ANALYTE	UNITS	PREP DATE	RESULT	LIMIT	SPIKE	REF VAL	%REC FLAG	QC SPECS	
									LOW	UPPER
S712176-02A	POLYCHLORINATED BIPHENYLS	µg/Kg-DRY	01/05/98							
	PCB-1221			ND	350		ND			
	PCB-1232			ND	180		ND			
	PCB-1242			ND	18		ND			
	PCB-1246			ND	18		ND			
	PCB-1254			ND	18		ND			
	PCB-1260			140	18	180	ND 77.8		38	128
	PCB-1016			130	18	180	ND 72.2		38	128
	Tetrachlorometaxylene			4.5		7.0	64.3		11	102
	Decachlorobiphenyl			7.1		7.0	101		35	141

QA/QC REPORT
SPIKE DUPLICATE SUMMARY

SAMPLE ID	ANALYTE	UNITS	PREP DATE	RESULT	LIMIT	SPIKE	REF VAL	%REC FL	%RPD	QC SPECS	
										LOW	UPPER
S712176-02A	POLYCHLORINATED BIPHENYLS	µg/Kg-DRY	01/05/98								
	PCB-1221			ND	350		ND				
	PCB-1232			ND	180		ND				
	PCB-1242			ND	18		ND				
	PCB-1246			ND	18		ND				
	PCB-1254			ND	18		ND				
	PCB-1260			140	18	180	ND 77.8	0.00		38	128
	PCB-1016			130	18	180	ND 72.2	0.00		38	128
	Tetrachlorometaxylene			4.3		7.0	61.4	4.55		11	102
	Decachlorobiphenyl			6.7		7.0	95.7	5.80		35	141



8111 11th Avenue
Anchorage, AK 99503
(907) 258-2155
FAX (907) 258-6634
Web: www.analyticagroup.com

(303) 469-8868
 FAX: (303) 469-5254

LGN: 8712,
CSN: 4-514

Chain of Custody Record / Analysis Request

Company Name	Company Address	Project Name	Report To	Sampler	P.O. Number	Containers				Time Collected		Date Collected		Matrix		Soil/Water		8 oz Glass		4 oz Glass		40 ml. VOAHC		1 Liter		RUSH (see below)		PH-2		LAB ID	
Carson Don, Inc	712 W 12th St Sunnyside, AK 99801	Annette Is Trans. Rem.	Deborah Baylen	Deborah Baylen																											
Telephone 586-1447																															
FAX (907) 586-5917																															
Sample ID																															
AI97E5501																															
AI97W5502																															
AI97P5503																															
AI97N5504																															
AI97E5505																															
AI97S5506																															
AI97U5507																															
AI97W5508																															
AI97NUS5509																															
AI97ST5509																															
AI97CT5510																															

COMMENTS

8-13 AEL for analysis

TURNAROUND

☐ 2 Business Days

☐ 5 Business Days

☒ 10-15 Business Days

☐ Other: #Business Days

DELIVERABLES

☐ Level 1

☒ ADEC Format

☐ ACOE

☐ AFCEE

☐ EDF - Format: specify

RECEIVED BY:

Signature: *[Signature]*

Printed Name: *[Name]*

Firm: *[Firm]*

Date/Time: *[Date/Time]*

RELINQUISHED BY:

Signature: *[Signature]*

Printed Name: *[Name]*

Firm: *[Firm]*

Date/Time: *[Date/Time]*

RECEIVED BY:

Signature: *[Signature]*

Printed Name: *[Name]*

Firm: *[Firm]*

Date/Time: *[Date/Time]*

ANALYTICA USE ONLY: *DHL*

Airbill / Freight #: *8517981006*

Condition of Sample Containers:

Temp Received: *2* °C @ AKI 0.4m

of Coolers: *(1)*

Seals: *425 (5) Inset*

PAGE 1 OF 1



an Analytica Group company

Carson Dorn, Inc.
712 W. 12th Street
Juneau, AK 99801-1588

Attn: Deborah Boylen

325 Interlocken Parkway
Suite 200
Broomfield, CO 80021
(303) 469-8868
(800) 873-8707
FAX: (303) 469-5254

Order #: 98-02-057
Date: 02/26/98 10:00
Work ID: ANNETTE IS TRANS REM
Date Received: 02/10/98
Date Completed: 02/25/98

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Client Description</u>
01	AI97WSS07

<u>Sample Number</u>	<u>Client Description</u>
02	AI97WSS17

Enclosed are the analytical results for the submitted sample(s). Please review the CASE NARRATIVE for a discussion of any data and/or quality control issues. A listing of data qualifiers and analytical codes is located on the TEST METHODOLOGIES page at the end of the report.

If you have any questions regarding the analyses, please feel free to call.

Sincerely,

Claire K. Toon
Project Manager

Samples were prepared and analyzed according to methods outlined in the following references:

- o Test Methods for Evaluating Solid Waste, USEPA SW-846, Third Edition, Revision 3, January 1995.

All analyses meet quality assurance objectives.

This is a reanalysis of samples previously reported with AEL Order #97-12-176, per client request.

No PCBs were detected in the reanalysis of sample AI97WSS17. However, PCBs are not necessarily homogeneous in solid matrices. Since the results for sample AI97WSS07 were reproduced, only one analysis charge has been applied.

Sample: 01A AI97WSS07

Collected: 12/20/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u> <u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Percent Moisture	ASTM D2216	8.40	0.1	WT%	02/10/98
Polychlorinated Biphenyls	SW 8082				
PCB-1221		ND	370	ug/Kg-DRY	02/18/98
PCB-1232		ND	180	ug/Kg-DRY	02/18/98
PCB-1242		ND	18	ug/Kg-DRY	02/18/98
PCB-1248		ND	18	ug/Kg-DRY	02/18/98
PCB-1254		ND	18	ug/Kg-DRY	02/18/98
PCB-1260		ND	18	ug/Kg-DRY	02/18/98
PCB-1016		ND	18	ug/Kg-DRY	02/18/98
SURROGATES, % Recovery					
Tetrachlorometaxylene		53.4	Min:	11	Max: 102
Decachlorobiphenyl		49.3	Min:	35	Max: 141

Sample: 02A AI97WSS17

Collected: 12/20/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u> <u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Percent Moisture	ASTM D2216	8.90	0.1	WT%	02/10/98
Polychlorinated Biphenyls	SW 8082				
PCB-1221		ND	360	ug/Kg-DRY	02/18/98
PCB-1232		ND	180	ug/Kg-DRY	02/18/98
PCB-1242		ND	18	ug/Kg-DRY	02/18/98
PCB-1248		ND	18	ug/Kg-DRY	02/18/98
PCB-1254		ND	18	ug/Kg-DRY	02/18/98
PCB-1260		ND	18	ug/Kg-DRY	02/18/98
PCB-1016		ND	18	ug/Kg-DRY	02/18/98
SURROGATES, % Recovery					
Tetrachlorometaxylene		78.1	Min:	11	Max: 102
Decachlorobiphenyl		75.3	Min:	35	Max: 141

THE FOLLOWING CODES APPLY TO THE ANALYTICAL REPORT

RESULT field...

ND = not detected at the reported limit

NA = analyte not applicable (see case narrative/methods for discussion)

Q (qualifier) field...

GENERAL:

* = Recovery or %RPD outside method specifications

H = value is estimated due to analysis run outside EPA holding times

E = reported concentration is above the instrument calibration range

D = analyte was diluted to bring within instrument calibration range or
to remove matrix interferences

ORGANIC ANALYSIS DATA QUALIFIERS:

B = analyte was detected in the laboratory method blank

J = analyte was detected above the instrument detection limit (IDL)
but below the analytical reporting limit (CRDL)

INORGANIC ANALYSIS DATA QUALIFIERS:

B = analyte was detected above the instrument detection limit (IDL)
but below the analytical reporting limit (CRDL)

W = post digestion spike did not meet criteria (80-120%)

S = reported value determined by the Method of Standard Additions

Order # 98-02-057
ANALYTICA, INC.

Carson Dorn, Inc.
TEST METHODOLOGIES

Page 5

PCB_8S: POLYCHLORINATED BIPHENYLS

METHOD: 8082

PCBPRS: Ultrasonic Extraction - PCBs

METHOD: 3550A

PMOIST: PERCENT MOISTURE

METHOD: ASTM D2216

Order # 98-02-057
ANALYTICA, INC.

Carson Dorn, Inc.
DATES REPORT

Page 6

Sample: 01A AI97WSS07

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Percent Moisture	ASTM D2216	12/20/98	02/10/98	NA		02/10/98
Polychlorinated Biphenyls	SW 8082	12/20/98	02/10/98	NA	02/10/98	02/18/98

Sample: 02A AI97WSS17

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Percent Moisture	ASTM D2216	12/20/98	02/10/98	NA		02/10/98
Polychlorinated Biphenyls	SW 8082	12/20/98	02/10/98	NA	02/10/98	02/18/98

Appendix D
Transformer Oil Laboratory Report



CT&E Environmental Services Inc.

Post-it Fax Note

7671

Date	4/8/97	# of pages	1
To	Bob DEERING		
From	GARTH BEYETTE		
Co./Dept.	Co.		
Phone #	271-3355		
Fax #	Fax #		

CT&E Ref.# 971151001
 Client Name Federal Aviation Administration
 Project Name/# Annette Island
 Client Sample ID ANNTS97 T0
 Matrix Oil
 Ordered By
 PWSID

Client PO#
 Printed Date/Time 03/25/97 12:03
 Collected Date/Time 03/04/97 17:00
 Received Date/Time 03/07/97 13:15
 Technical Director: Stephen C. Ede

Released By

Sharon Patten

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
PCB's by GC ECD								
Aroclor-1016	0.998 U	0.998	mg/Kg	SW846-8080		03/11/97	03/18/97	LZ
Aroclor-1221	0.998 U	0.998	mg/Kg	SW846-8080		03/11/97	03/18/97	LZ
Aroclor-1232	0.998 U	0.998	mg/Kg	SW846-8080		03/11/97	03/18/97	LZ
Aroclor-1242	0.998 U	0.998	mg/Kg	SW846-8080		03/11/97	03/18/97	LZ
Aroclor-1248	0.998 U	0.998	mg/Kg	SW846-8080		03/11/97	03/18/97	LZ
Aroclor-1254	0.998 U	0.998	mg/Kg	SW846-8080		03/11/97	03/18/97	LZ
Aroclor-1260	379	20.0	mg/Kg	SW846-8080		03/11/97	03/18/97	JLB

Boiler

Department Of Transportation

CHAIN OF CUSTODY

ANNETTE ISLAND

Transformers/Electrical Equipment/Drums or Containers

Page 1 of 2

Reports and Invoice to: Mr. Brad Platt

Laboratory: CT&E

Federal Aviation Administration, Alaska Region, 222 W. 7th Ave, #14 (AALA71) Anchorage, AK 99513-7587

200 W. Potter

Phone: (907) 271-5359 Fax: (907) 271-4470

Anchorage, AK 99518-1605

Special notes: A WAS transformer is pole mounted on second pole south of A WAS. This transformer is owned by Metlakatla Power.

PH: 562-2343 Fax: 561-5340

POC: Michelle Turner

Sample Prefix	File Name/Location	Sampled By	Larry Pethgins & Russel Rink	Phone:	Fax:	Condition?	Amount						
Sample Number	Lab Ref	Sampled	Date/Time	Matrix	Color	%	PCB	Data Plate Information	Transformer Dimensions	Gallons	Condition?	Amount	
70		03/04 97	0700 Hr.	Top	Trans Oil	YEL	100	X	Manu: General Electric S/N: K534755-66P KVA: 75	H= 42" W= 44" D= 44"	48 Gals	Inactive/Sealed	60 ml
				Middle									
				Bottom									
71		03/04 97	0800 Hr.	Top					Manu: Westinghouse S/N: 290124 KVA: 15	H= 44" W= 20" D= 18"	notes: Sample collected from tank under Transformer	Rusty/Inactive	250 ml
				Middle	Soil	BRN	100	X					
				Bottom									
72		03/04 97	0830 Hr.	Top					Manu: Westinghouse S/N: 290124 KVA: 15	H= 44" W= 20" D= 18"	notes: Blkg 619 (middle)	marker 30" N of Blkg	80 ml
				Middle	Wipe	NC	100	X					
				Bottom									
73		03/05 97	0900 Hr.	Top					Manu: RTE S/N: 857029651 KVA: 25	H= 44" W= 20" D= 18"	notes: Located at MDOB	Ground mount/Metlakatla Power	80 ml
				Middle	Trans Oil	YEL	100	X					
				Bottom									
74		03/05 97	0930 Hr.	Top	Trans Oil	YEL	100	X	Manu: Line Material Ind. S/N: F3939901 KVA: 75	H= 44" W= 20" D= 18"	notes: Located at VOIR	Active/VOIR	80 ml
				Middle									
				Bottom									

Transformer located at ANIX: Name: ANIX, S/N: 945645337, KVA: 75, 140 gallons electric fluid, 2540 Lbs, FAA property, note: Data plate states transformer is filled with dielectric fluid containing <1 ppm PCB's

P-1062
97.1151

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